

# THE UNITED STATES OF ANTERIOA

TO ALL TO WHOM THESE: PRESENTS SHALL COME;

Karenbrug USA, Inc.

There has been presented to the

## Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLEMISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE FIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR OR TING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT UP BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY E SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEG

FESCUE, TALL

'Labarinth'

In Testimony Thereof, I have hereunto set my hand and caused the seal of the Hunt Huristy Trotection Office to be affixed at the City of Washington, D.C. this sixteenth day of May, in the year two thousand and eight.

Allest:

Commissioner Plant Variety Protection Offico Agricultural Marketing Service amond To Schafe

#### U.S. DEPARTMENT OF AGRICULTURE The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE the Paperwork Reduction Act (PRA) of 1995 Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426). APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE (Instructions and information collection burden statement on reverse) 1. NAME OF OWNER 2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME 3. VARIETY NAME Barenbrug USA, Inc. Labarinth Bar Fa 08PB 4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 5. TELEPHONE (include area code) FOR OFFICIAL USE ONLY Barenbrug USA, Inc. 541-924-0338 #200300049 33477 Hwy 99E 6. FAX (include area code) Tangent, OR 97389 541-791-9590 FILING DATE IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) 9. DATE OF INCORPORATION IF INCORPORATED, GIVE 12/3/2002 STATE OF INCORPORATION 21 January 1995 Corporation OR FILING AND EXAMINATION FEES: 10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) \$ 2,705.00 Dr. Joseph K. Wipff, III RECEIV Barenbrug USA, Inc. West Coast Research Center 36030 Tennessee Rd. Albany, OR 97322 11. TELEPHONE (include area code) 12. FAX (Include area code) 13. E-MAIL 541-924-0338 541-791-9590 iwipff@barusa.com 14. CROP KIND (Common Name) 16. FAMILY NAME (Botanical) 18. DOES THE VARIETY CONTAIN ANY TRANSGENES? (OPTIONAL) Tall Fescue Poaceae IF SO, PLEASE GIVE THE ASSIGNED USDA-APHIS REFERENCE NUMBER FOR THE 15. GENUS AND SPECIES NAME OF CROP 17. IS THE VARIETY A FIRST GENERATION HYBRID? APPROVED PETITION TO DEREGULATE THE GENETICALLY MODIFIED PLANT FOR Festuca arundinacea Schreber ☐ YES 🛣 NO COMMERICALIZATION. 19. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED 20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS (Follow instructions on reverse) OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act) X Exhibit A. Origin and Breeding History of the Variety YES (If "yes", answer items 21 and 22 below) NO (If "no", go to item 23) 21. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO Exhibit B. Statement of Distinctness NUMBER OF CLASSES? X Exhibit C. Objective Description of Variety ✓ YES x Exhibit D. Additional Description of the Variety (Optional) IF YES, WHICH CLASSES? DI FOUNDATION IN REGISTERED IX CERTIFIED 22. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? Exhibit E. Statement of the Basis of the Owner's Ownership X Exhibit F. Declaration Regarding Deposit f. Dr YES □ NO Voucher Sample (3,000 viable untreated seeds or, for tuber propagated varieties, verification g. IF YES, SPECIFY THE NUMBER 1,2,3, etc. FOR EACH CLASS. that lissue culture will be deposited and maintained in an approved public repository) Filing and Examination Fee (\$4,382), made payable to "Treasurer of the United 2 FOUNDATION 3 REGISTERED 4 CERTIFIED States" (Mail to the Plant Variety Protection Office) (If additional explanation is necessary, please use the space indicated on the reverse.) 23. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U.S. OR INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? OTHER COUNTRIES? X YES USA, 31 July 2002 X YES IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.) IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.) 25. The owners declare that a viable sample of basic seed of the variety has been furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is (are) informed that false representation herein can jeopardize protection and result in penalties. SIGNATURE OF OWNER SIGNATURE OF OWNER NAME (Please print or type)

CAPACITY OR TITLE

(See reverse for instructions and information collection burden statement)

DATE

DATE

5 February 2008

Dy Joseph K. Wipff

Turf and Forage Grass Breeder

CAPACITY OR TITLE

#200300049

GENERAL INSTRUCTIONS: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E, F; (3) for a tuber reproduced variety, verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; and (4) payment by credit card or check drawn on a U.S. bank for \$4,382 (\$518 filling fee and \$3,864 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice). NEW: With the application for a seed reproduced variety or by direct deposit soon after filling, the applicant must provide at least 3,000 viable untreated seeds of the variety per se, and for a hybrid variety at least 3,000 untreated seeds of each line necessary to reproduce the variety. Partial applications will be held in the PVPO for not more than 90 days; then returned to the applicant as un-filed. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 401, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a payment by credit card or check payable to "Treasurer of the United States" in the amount of \$768 for issuance of the certificates. Certificates will be issued to owner, not licensee or agent.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. The fees for filing a change of address; owner's representative; ownership or assignment; or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

**Plant Variety Protection Office** 

Telephone: (301) 504-5518 FA)

FAX: (301) 504-5291

General E-mail: PVPOmail@usda.gov

Homepage: http://www.ams.usda.gov/science/pvpo/PVPindex.htm

#### SPECIFIC INSTRUCTIONS:

براجيا العيمية العاروكيرية الرراج ويجارا

To avoid conflict with other variety names in use, the applicant must check the appropriate recognized authority and **provide evidence** that the permanent name of the application variety (even if it is a parental, inbred line) has been cleared by the appropriate recognized authority before the Certificate of Protection is issued. For example, for agricultural and vegetable crops, contact: U.S. Department of Agriculture, Agricultural Marketing Service, Livestock and Seed Programs, **Seed Regulatory and Testing Branch**, 801 Summit Crossing Place, Suite C, Gastonia, North Carolina 28054-2193 Telephone: (704) 810-8870. http://www.ams.usda.gov/lsg/seed.htm.

#### ITEM

19a. Give:

- (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
- (2) the details of subsequent stages of selection and multiplication;
- (3) evidence of uniformity and stability; and
- (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 19b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
  - (1) identify these varieties and state all differences objectively;
  - (2) attach replicated statistical data for characters expressed numerically and demonstrate that these are clear differences; and
  - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 19c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 19d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 19e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
- 20. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
- 23. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
- 24. See Section 55 of the Act for instructions on claiming the benefit of an earlier filing date.
- 22. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)
- 23. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)
- 24. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

### USA, Date of Patent: 13 Jan. 2004, Patent No. US 6,677,507 B2

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid CMB control number. The valid CMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, mental status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

## **EXHIBIT** A

## **Origin and Breeding History**

Of

## 'LABARINTH'

(Bar Fa 08PB)

Tall Fescue (Festuca arundinacea Schreber)

'Labarinth' (Bar Fa 08PB) tall fescue (*Festuca arundinacea* Schreber) is rhizomatous, medium green, late maturing, fine leaved, turf-type tall fescue selected from a polycross of a rhizomatous Portugal tall fescue collection with turf type tall fescue varieties.

The maternal parental germplasm of Bar Fa 08PB tall fescue traces its origin to a 26 plant collection made in 1993, in a grazed, unimproved pasture, near the city of Porto, Portugal. The paternal germplasm traces its origin to selections from Barleduc, Austin, Vegas and Phoenix.

**Spring-Summer 1993.** Twenty-six extremely rhizomatous, very vigorous, tall fescue plants were collected in grazed, unimproved pasture, near Porto, Portugal. At the Barenbrug France Research Station, These 26 plants were planted into a nursery with plants of Barleduc, Austin, Vegas and Phoenix and allowed to inter-pollinate. Only the seed from the rhizomatous collections were harvested. Twenty-four of the 26 plants were harvested separately. The remaining 2 plants did not produce any seeds.

Fall 1993. Seed from each of the 24 lines was used to establish an isolated crossing block for each maternal line of 50 plants each. Each of the 24 blocks was isolated from each other.

**Spring–Summer 1994.** The 24 isolation blocks were evaluated for rhizome production and vigorous growth. Only 20 lines yielded enough seed to establish a turf trial at Barenbrug France.

1995-1997. The 20 lines were evaluated in turf trials.

1997. Three lines (fg p23, fg p18 and fg p10) were selected for their turf quality and rhizomatous habit. These three lines were planted into a nursery, by mother line, in separate rows of 50 plants each.

1998. Fg p23 was dropped since it flowered so late that it did not nick with fg p18 and fg p10 in flowering. So, only seed of fg p18 and fg p10 was harvested, bulked, and designated as Bar Fa 08PB.

Fall 1998. A several hundred plant space plant nursery was established.

1999. Prior anthesis this nursery was rogued to uniformity, with less than 5% plants removed. The nursery was bulked harvested in the summer of 1999 and designated as breeder seed.

'Labarinth' is stable and uniform. 'Labarinth' has been observed during the seed increase period and from foundation to certified seed to be stable and uniform, with less than 4% variants being observed. The variants are slightly taller and have slightly wider leaves. Variants described have been observed to be uniform and stable.

#### EXHIBIT B

#200300049

### **Statement of Distinctness**

## 'LABARINTH'

(Bar Fa 08PB)

## Tall Fescue (Festuca arundinacea Schreber)

- 1. 'Labarinth' is most similar to 'Rebel Jr.'; however 'Labarinth' differs from 'Rebel Jr.' in flag leaf height (54 vs. 39.39 cm, respectively). See Tables 1 & 2.
- 2. 'Labarinth' is most similar to 'Rebel Jr.'; however 'Labarinth' differs from 'Rebel Jr.' in panicle length (24.88 vs. 19.1 cm, respectively). See Tables 1 & 2.
- 3. 'Labarinth' is most similar to 'Rebel Jr.'; however 'Labarinth' differs from 'Rebel Jr.' in tiller leaf length (20.03 vs. 14.75 cm, respectively). See Tables 1 & 2.
- 4. 'Labarinth' is most similar to 'Rebel Jr.'; however 'Labarinth' differs from 'Rebel Jr.' in number of rhizomes per plant (3.55 vs. 0.25, respectively). See Table 3.
- 5. 'Labarinth' is most similar to 'Rebel Jr.'; however 'Labarinth' differs from 'Rebel Jr.' in the percent of plants with rhizomes (92.5 vs. 25.5 %, respectively). See Table 3.
- 6. 'Labarinth' is most similar to 'Rebel Jr.'; however 'Labarinth' differs from 'Rebel Jr.' in the number of shoots per rhizomes (2.3 vs. 0.4, respectively). See Table 4.
- 7. 'Labarinth' is most similar to 'Rebel Jr.'; however 'Labarinth' differs from 'Rebel Jr.' in the average rhizome length (3.13 vs. 0.65 cm, respectively). See Table 4.

Table 1. 2001 Mean morphological measurements for entries in a tall fescue space plant nursery. Nursery was established fall of 2000 at the West Coast Research Center, Barenbrug USA, Inc., 36030 Tennessee Rd., Albany, OR.

	Flag Leaf Height	Fiag Leaf Blade Length	Flag Leaf Blade Width	Panicle Length	Heading Day	Tiller Leaf Width	Tiller Leaf Length	First Internode Length	Penduncle Length	Panicle Height	Plant Height	
ENTRY	cm	cm	cm	cm	Day	mm	cm	cm	cm	cm	cm	
1 Bonsai	24.97 f	6.51 e	5.31 c	13.19 f	145.2 ab	6.54 e	9.91 f	12.07 d	42.13 bc	57.13 d	68.23 f	
2 Bonanza	42.26 bc	12.34 a	7.1 a	22.47 bc	145.9 a	10.12 a	19.55 ab	19.01 ab	55.23 a	72.54 bc	87.11 cd	
3 Labarinth	46.5 b	11.1 a-d	6.4 ab	26.26 a	145.9 a	7.93 cd	17.05 c	16.42 bc	44:54 bc	73.45 bc	99.6 bc	
4 Kentucky 31 Endo+	61.22 a	12.16 ab	6.81 ab	23.96 ab	140.5 d	10.42 a	20.26 a	22.77 a	57.51 a	101.9 a	126.81 a	
5 Rebel II	40.77 bc	11.7 abc	6.62 ab	20.23 cd	142 cd	9.31 b	17.68 bc	16.81 bc	51.88 ab	77.45 b	97.53 bc	
6 Rebel Jr	28.57 ef	9.71 d	6.05 bc	17.09 e	144.1 abc	7.78 d	14.4 de	11.27 d	39.37 c	57.65 d	73.53 ef	
7 Shortstop	37.32 cd	10.41 bcd	6.51 ab	19.85 d	144.7 ab	8.57 c	16.55 cd	16.52 bc	49.68 abc	72.87 bc	91.22 bcd	
8 Silverdo	32.13 de	10.08 cd	6.67 ab	17.88 de	143.3 bc	7.93 cd	14.21 e	12.92 cd	43.65 bc	67.56 c	83.96 de	
9 Torpedo	40.87 bc	12.12 ab	6.06 bc	25.43 a	144.3 ab	7.76 d	18.81 abc	16.63 bc	47.45 abc	71.39 bc	101.28 b	
LSD (P=.05) CV	6.973 10.22	1.881 10.18	0.942 8.51	2.482 6.92	2.13 0.86	0.697 4.75	2.31 8.09	4.05 14.58	10.586 12.76	8.833 7.04	12.941 8.11	• •

Table 1. Cont.

Variety		mma ength		nma idth	Awn Length	1000 W	
	mm		mm		mm	mg	
1 Bonsai	6.8	b-e	1.4	С	8.0	2000	С
2 Bonanza	6.9	b-e	1.5	ab	0.6	2767	ab
3 Labarinth	7.5	ab	1.4	bc	0.8	2633	ab
4 Kentucky 31 Endo+	7.3	abc	1.5	а	0.7	3167	а
5 Rebel II	6.9	bcd	1.5	а	8.0	3050	а
6 Rebel Jr	6.2	е	1.4	bc	0.6	2383	bc
7 Shortstop	6.7	cde	1.4	bc	0.7	2350	bc
8 Silverdo	6.5	de	1.5	ab	0.6	2367	bc
9 Torpedo	7.6	а	1.4	bc	1.2	2583	abc
LSD (P=.05)	0.7		0.09			608	
CV	5.7		3.4		34.7	13.6	

Table 2. 2002 Mean morphological measurements for entries in a tall fescue space plant nursery. Nursery was established fall of 2000 at the West Coast Research Center, Barenbrug USA, Inc., 36030 Tennessee Rd., Albany, OR.

	VARIETY	Flag Leaf Height		Flag Leaf Blade Length		Flag Leaf Blade Width		Panicle Length		Heading Day		Anthesis Day		Tiller Leaf Width		Tiller Leaf Length		First Internode Length		Peduncie Length		Panicle Height		Plant Height	
		cm		cm		mm		cm		Day		Day		mm		cm		cm		cm	•	cm		cm	
1	Bonsai	44.9	d	8.9	С	3.5	С	14.4	d	133	ab	159	b	4.4	de	12.7	С	21.4	þ	28.1	ab	74.9	С	105.0	е
2	Bonanza	64.7	b	15.6	а	5.7	а	26.1	а	133	а	158	bc	6.7	а	22.0	ab	27.2	а.	24.9	abc	89.7	Ь	141.4	b
3	Labarinth	61.5	bc	14.6	ab	3.5	c	23.5	b	134	а	164	а	4.2	e	23.0	ab	21.0	b	17.9	С	79.3	С	122.8	cd
4	Kentucky 31 Endo+	80.3	а	12.8	b	5.0	b	24.7	ab	120	d	155	С	6.3	ab	19.6	b	26.4	а	23.4	abc	98.4	а	159.6	a
5	Rebel II	61.4	bc	14.0	ab	4.9	b	20.8	С	129	С	157	bc	5.6	bc	20.1	b	26.8	а	25.4	ab	94.4	ab	130.0	С
6	Rebel Jr	50.0	d	12.8	ь	4.8	b	21.1	c	130	bc	157	bc	5.5	bc	15.1	С	20,6	ь	28.2	a	79.7	C.	124.8	cd
7	Shortstop	52.7	cd	12.9	þ	4.7	b	20.6	C	133	ab	158	bc	5.3	cd	21.2	ab	23.6	ab	22.0	abc	77.5	C	124.4	cd
8	Silverdo	47.2	d	13.6	ab	4.6	þ	20.2	С	129	С	157	bc	5.1	cd	19.4	b	21.3	b	26.7	ab	73.1	С	118.4	đ
9	Torpedo	55.3	bcd	15.4	а	3.6	С	26.6	а	134	а	164	а	4.4	de	24.4	а	20.5	b	21.0	bc	74.1	С	124.7	cd
	LSD (P=.05) CV	10.6 10.6		2.4 10.2		0.6 7.2		2.4 6.4		3.3 1.5		3.4 1.2		0.9 9.9		3.8 11.1		4.4 10.9		7.1 17.1		8.6 6.0		11.0 5.0	

Table 2. Cont.

	Variety	Lemma Length	Lemma Width	Awn Length	1000 Seed Wt.
	· • · ·	mm	mm	mm	mg
			4.0	4.4.	0040 - 1
1	Bonsai	6.3 c	1.3 e	1.1 c	2640 cd
2	Bonanza	7.1 a	1.5 abc	1.2 bc	3027 ab
3	Labarinth	7.1 a	1.4 e	1.9 ab	2373 de
4	Kentucky 31 Endo+	6.9 ab	1.5 ab	0.9 с	2697 a-d
5	Rebel II	6.7 abc	1.5 ab	1.4 abc	3070 a
6	Rebel Jr	6.4 bc	1.4 cde	1.2 bc	2990 abc
7	Shortstop	6.4 bc	1.4 bcd	1.0 c	2663 bcd
8	Silverdo	6.7 abc	1.5 a	0.9 c	2673 bcd
9	Torpedo	7.1 a	1.4 de	2.1 a	2220 e
	LSD (P=.05)	0.6	0.07	0.8	383
	CV	5.1	2.9	35.8	8.2

Table 3. 2001-2002 Rhizomatous Characterstics of Labarinth and other entries in a tall fescue space plant nursery. Nursery was established fall of 2000 at the West Coast Research Center, Barenbrug USA, Inc., 36030 Tennessee Rd., Albany, OR.

<u> </u>		. 2	001	2	002
		Rhizomes per Plant ¤	Plants with Rhizomes <sup>‡</sup>	Rhizomes per Plant ង	Plants with Rhizomes <sup>‡</sup>
	Variety		%		%
1	Bonsai	0.1 e	8-e	0.1 c	15 cd
2	Bonanza	0.9 b	67 b	0.3 с	16 cd
3	Labarinth	2.3 a	89 a	4.8 a	96 a
4	Kentucky 31 Endo+	0.7 bc	51 bc	0.7 с	46 bc
5	Rebel II	0.4 cd	40 cd	0.4 c	31 cd
6	Rebel Jr	0.4 cd	42 bcd	0.1 c	9 d
7	Shortstop	0.3 de	22 de	0.2 c	23 cd
8	Silverdo	0.4 cde	33 cd	0.2 c	8 d
9	Torpedo	2.7 a	95 a	2.6 b	74 ab
	CV	9.14	18.99	19.07	35

<sup>&</sup>lt;sup>‡</sup> Means followed by same letter are not significantly different (P=.05) based on LSD value calculated on data subjected to the Arcsine squareroot transformation. Since data was transformed no LSD values are given.

Table 4. 2001-2002 Rhizomatous Characterstics of Labarinth and other entries in a tall fescue space plant nursery. Nursery was established fall of 2000 at the West Coast Research Center, Barenbrug USA, Inc., 36030

_		20	001	200	02
		Shoots per Rhizome <sup>† ¤</sup>	Average Rhizome Length <sup>†</sup> ¤	Shoots per Rhizome <sup>† ¤</sup>	Average Rhizome Length <sup>†</sup> ¤
	Variety		cm		cm
. 1	Bonsai	0.1 e	0.2 e	0.3 с	<b>0.4</b> c
2	Bonanza	1 c	1.7 b	0.4 bc	0.6 с
3	Labarinth	2.5 b	3 a	2.1 a	6.4 a
4	Kentucky 31 Endo+	0.7 cd	1.4 bc	0.8 b	2.1 b
5	Rebel II	0.5 cde	0.9 cd	0.6 bc	1.0 bc
6	Rebel Jr	0.5 cde	0.9 bcd	0.3 c	0.4 c
7	Shortstop	0.3 de	0.5 de	0.4 bc	1.0 bc
8	Silverdo	0.5 cde	0.7 cde	0.2 c	0.4 c
9	Torpedo	3.9 a	4.1 a	2.0 a	4.4 a
	CV	12.05	12.08	13.67	18.5

<sup>&</sup>lt;sup>†</sup> Data calculated based on all plants with or without rhizomes

REPRODUCE LOCALLY. Include form number and date on all reproductions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

> U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE SCIENCE AND TECHNOLOGY PLANT VARIETY PROTECTION OFFICE BELTSVILLE, MD 20705

Exhibit C

**OBJECTIVE DESCRIPTION OF VARIETY** 

Tall and Meadow Fescues ( <i>Festuca</i> spp.)						
NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME				
Barenbrug USA, Inc.	Bar Fa 08PB	Labarinth				
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country)  FOR OFFICIAL USE ONLY						
Barenbrug USA, Inc.		PVPO NUMBER				
33477 Hwy 99E	#200300049					
Tangent, OR 97389						
PLEASE READ ALL INSTRUCTIONS CAREFULLY	-	****				
Place the appropriate number that describes the varietal characteristics of this variety in the spaces below. Use leading zeros when necessary (e.g., 089 or 09) when number is either 99 or less or 9 or less. Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Give additional description for all characteristics that cannot be adequately described in the form below. Cultural conditions must be stated in the comment section and plant number/data points shown in all tables. See Table 2.						
1. SPECIES: (With comparison varieties, use varieties	es within the species of the application variety)					
9 1 = F. arundinacea (Tall)	<u>Turf Types</u>					
1 = Kentucky 31 2 = Rebel	3 = Olympic 4 = Bonanza	5 = Arid 6 = Rebel II				
7 = Shortstop 8 = Silverado	9 = Rebel Jr. 10 = Mini Mustang	11 = Crewcut 12 = Bonsai				
	<u>Forage Types</u>					
20 = Kentucky 31 21 = Ma	artin 22 = Forager 23 =	Mozark				
. 24 = Kenhy 25 = AL	J Triumph 26 = Fawn 27 =	Cajun				
2 = F. pratensis (Meadow)						
30 = Admira 31 = Be	eaumont 32 = Comtessa 33 =	Ensign 34 = Trader				
2. CYTOLOGY:						
42 Chromosome Number						
3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)  2 Transition Zone 2 West 2 Northeast Other (Specify)						
4. MATURITY: (Date First Headed, 10% of Panicle E	imergence)					
6 Maturity Class 1 = Very Early 2 = AU Triumph 3 = Early (Fawn) 4 = K31, Kenhy 5 = Medium (Rebel)						
6 = Bonanza 7 = Late (Silverado) 8 = Very Late						
Date Headed 14 May Location Albany, Oregon						
Avg. No. days to heading	****					

4	ΜΔΤΙ	JRITY:	(continu	eď.
→.		/INI I I . '	i COHUILL	ICU.

	Days Earlier Than		)	
	Maturity Same As	6	}	Comparison Variety
4	Davs Later Than	5		

#200300049

5. MATURE PLANT HEIGHT cm: (Average of 100 culms from crown to top of panicle, if panicle is nodding, straighten)

\* INTERNODE LENGTH cm: (First internode subtending the flag leaf)

21.4 cm Internode Length	
58 cm Shorter Than5	)
Length Same As _9	Comparison Variety
cm Taller Than	J

HEIGHT AT EAR EMERGENCE cm: (Flag leaf height from crown to flag leaf collar)

#### 6. GROWTH HABIT: (Mature Plants)

3 = Semiprostrate

5 = Horizontal

7 = Semierect (Rebel)

9 = Erect (Mini Mustang)

## 7. RHIZOMES: (Pseudo) True rhizomes

2 = Rare (Rebel)

3 = Common

#### 8. LEAF BLADE: (Tiller Leaves/Turf Color)

3 = Medium Light Green

5 = Green

7 = Medium Dark Green

Specify Rating of Comparison Variety (6)

9 = Very Dark Green

Anthocyanin:

1 = Absent

9 = Present

Basal Hairs:

1 = Absent

9 = Present

Margins:

1 = Absent

5 = Semi-rough

9 = Rough

Width Class:

1 = Very Coarse

3 = Coarse

5 = Medium

7 = Fine

9 = Very Fine

### TILLER LEAF LENGTH CM: (First leaf subtending the flag leaf)

Comparison Variety

#### TILLER LEAF WIDTH MM:

•-	mm Tiller Leaf Width
2.5	mm Narrower Than 4

Comparison Variety \_•\_ mm Longer Than

8. LEAF BLADE: (Continued)							
FLAG LEAF LENGTH CM: * FLAG LEAF WIDTH MM:							
1 4.6 cm Flag Leaf Length	_3_	35 mm Flag Leaf Width					
	1	$\frac{1}{3}$ mm Narrower Than $\frac{9}{3}$					
Length Same As Comparison Va	uriety	Width Same As 12 Comparison Variety					
cm Longer Than		· mm Wider Than	J				
9. LEAF SHEATH: (Basal Portion)							
9 Anthocyanin (Seedling): 1 = Absent (K31)	9 = Present (	)					
9 Auricle Hairiness: 1 = Absent (	9 = Present (	)					
10. PANICLE: (At seed maturity except where noted.)							
1 = Narrow-tapering	5 = Ovate	7 = Oblong	9 = Other (Specify)				
1 = Compact (appressed) 5 =	- Intermediate	7 = Open	9 = Other (Specify)				
9 Orientation: 1 = Nodding	9 = Erect		· ·				
9 Branch Pubescence: 1 = Glabrous	9 = Pubescent						
1 Anther Color (At Anthesis):	1 = Yellowish Green 4 = Purplish	2 = Green 5 = Reddish	3 = Bluish Green 6 = Other (Specify)				
Glume Cotor (At Anthesis):	1 = Yellowish Green 4 = Purplish	2 = Green 5 = Reddish	3 = Bluish Green 6 = Other (Specify)				
$\underline{2}$ $\underline{3}$ $\underline{5}$ cm Panicle Length (From base to tip, if nodding,	straighten; after anthesis)						
cm Shorter Than							
Length Same As Comparison Va	riety						
2.4 cm Longer Than 9							
11. SEED: (With Lemma and Pelea)							
2633 mg per 1000 seeds							
417 mm Less Than 5							
Weight Same As 4 Comparison Va	riety						
633 mm More Than							
Pelea: (Keels or Margins) 1 Hairs:	1 = Absent	5 = Short	(Missouri 96) 9 = Long				
Lemma: 1 Hairs:	1 = Absent ( Kenhy)	5 = Severa	al 9 = Long (Missouri 96)				
7 • 5 mm Lemma Length (Mature) 1 • 4 mm Lemma Width							
cm Shorter Than	_•	mm Narrower Tha	an				
Length Same As 1 Comparison Val	riety	Width Same As	1 Comparison Variety				
cm Longer Than		mm Wider Than					

11. SEED: (continued)		
AWNS: <sup>9</sup> 1 = Absent ( ) 9 = Present (Falcon)	% Plants with Awns	
$0 \cdot 8$ mm Awn Length (of those present)		
mm Shorter Than Length Same As 5 Comparison Variety  0 • 2 mm Longer Than 8		
12. DISEASE, INSECT, AND NEMATODE REACTION: (0 = N	lot Tested 1 = Least Resistant 9	= Most Resistant)
0 Melting-out (Drechslera poae)	O Blind Seed (Gloeotini	ia temulenta)
8 Leaf Spot (D. siccans)	9 Dollar Spot (Lanzia, r	nollerdiscus spp.)
8 Net Blotch (D. dictyoides)	9 Stem Rust (Puccinia	graminis)
7Brown Patch (Rhizoctonia solani)	7 T. Blight (Typhula inc	arnata)
7 C. Leaf Spot (Cercospora fectucae)	7 Pythium Blight ( <i>Pythi</i> i	um spp.)
Pink Snow Mold (Gerlachia nivalis)	9 Powdery Mildew ( <i>Ery</i>	siphe graminis)
O_Silver Tip (F. tricinctum, F. roseum)	8 Crown Rust (Puccinia	a coronata)
Other Disease		
Other Insect		
Other Nematode		
13. ENVIRONMENTAL STRESS: (0 = Not Tested	1 = Least Resistant	9 = Most Resistant)
7 Drought Stress 1 = Susceptible	5 = Tolerant	9 = Resistant
8 Shade Stress 1 = Susceptible	5 = Tolerant	9 = Resistant
5 Winter Stress 1 = Susceptible	5 = Tolerant	9 = Resistant

14. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics, indicate the degree of resemblance with the following scale:

1 = Application Variety is Less Than Comparison Variety. 2 = Same as 3 = More Than, Better, Greater, Darker, etc.

Character	Varieties	Rating	Character	Varieties	Rating
Leaf Width	Rebel Jr.	1	Leaf Color	Rebel Jr.	1
Panicle Color	Rebel Jr.	1	Panicle Shape	Rebel Jr.	1
Seed Size	Kentucky 31	1	Cold Injury	Rebel Jr.	2
Winter Color	Rebel Jr.	3	Heat	Rebel Jr.	2
Disease	Rebel Jr.	2			

15. EXPERIMENTAL: Give a brief summary of the experimental design utilized to collect the data used on this form. Cultural conditions, number of plants measured and plant spacing must be specified.

The data is collected from a space plant block in Albany, Oregon established the fall of 2000. The data was collected from same block for two years; 2001 and 2002. The plants were planted on  $2' \times 2'$  spacings, with 27 plants per block (replication). The trial was a three replication trial.

16. ADDITIONAL DESCRIPTION: (Use additional sheets as required).

Describe all characteristics that cannot be adequately described in the form above in Exhibit D. Varieties used for comparison should be used as may be appropriate, such as for disease reactions. Append all comparative trial and evaluation data, including measured characters, environmental, and disease tests results. Providing such information may aid in conducting a more thorough review of the applicants claims of distinctness.

#200300049

#### **EXHIBIT D**

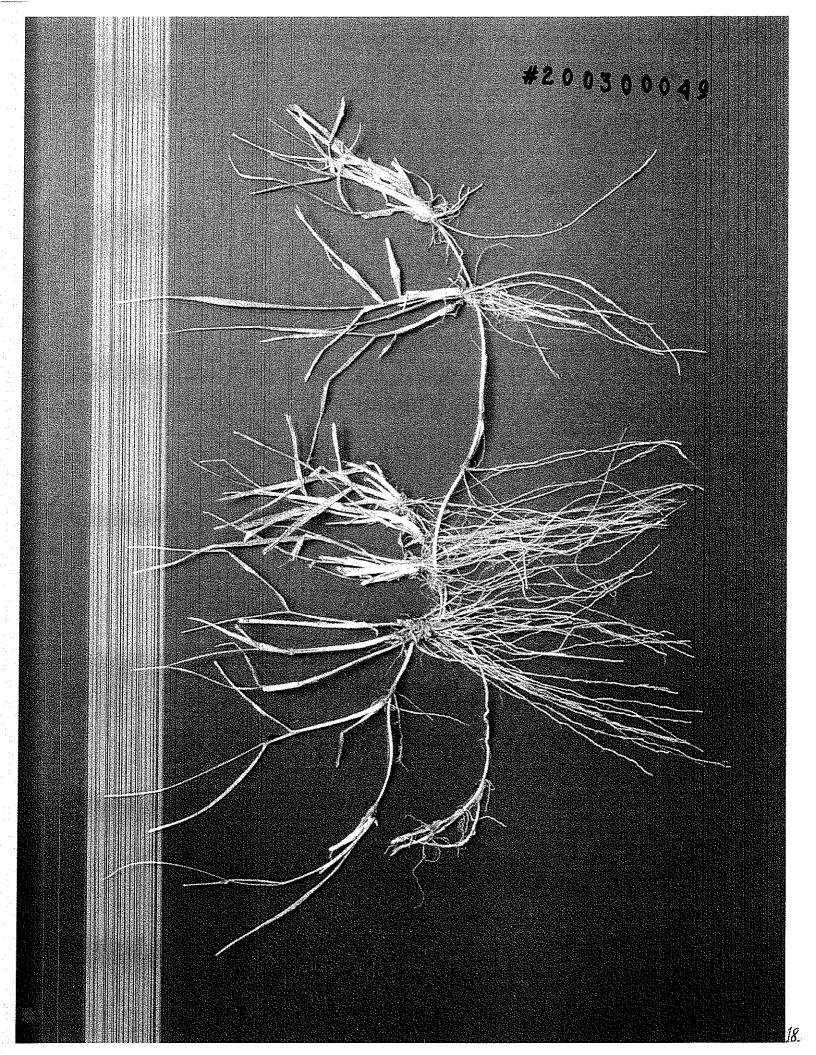
## Additional Description #200300049

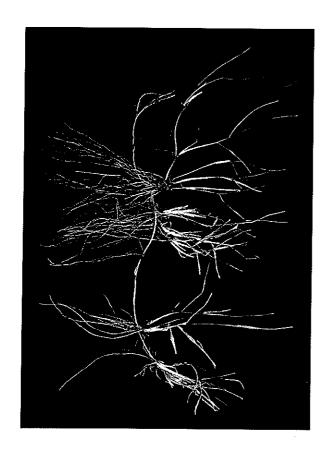
'LABARINTH'

(Bar Fa 08PB)

Tall Fescue (Festuca arundinacea Schreber)

- 1. See attached photo showing the rhizomatous habit of 'Labarinth'.
- 2. The spreading rhizomes are useful for growing tall fescue sod and give 'Labarinth' the possibility to fill in open areas in a lawn.
- 3. 'Labarinth' has applications on sod farms, home lawns, roadsides, athletic fields and other turf areas where tall fescue is adapted.





REPRODUCE LOCALLY. Include form number and edition date on at	reproductions.	ORIVI APPROVED - OIVIB NO. 0361-003		
U.S. DEPARTMENT OF AGRICULTURE AGRICULTURAL MARKETING SERVICE	Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held			
EXHIBIT E STATEMENT OF THE BASIS OF OWNERSHIP	confidential until the certificate is issu	ied (7 U.S.C. 2426).		
1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION	3. VARIETY NAME		
Barenbrug USA, Inc.	OR EXPERIMENTAL NUMBER Bar Fa 08PB	Labarinth		
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country)	5. TELEPHONE (Include area code)	6. FAX (Include area code)		
Barenbrug USA, Inc.	(541) 924-0338	(541) 791-9590		
33477 Hwy 99E	7. PVPO NUMBER			
Tangent, OR 97389	200300049			
8. Does the applicant own all rights to the variety? Mark an "X" in the		in. YES NO		
9. Is the applicant (individual or company) a U.S. national or a U.S. b	pased company? If no, give name of c	ountry. YES NO		
10. Is the applicant the original owner? YES	NO If no, please answer <u>one</u>	of the following:		
b. If the original rights to variety were owned by a company(ies)	NO If no, give name of count is (are) the original owner(s) a U.S. ba	sed company?		
11. Additional explanation on ownership (Trace ownership from original The development of 'Labarinth' was directed by Barenbrug) for Barenbrug.				
PLEASE NOTE:				
Plant variety protection can only be afforded to the owners (not licens	sees) who meet the following criteria:			
<ol> <li>If the rights to the variety are owned by the original breeder, that prediction and the country which affords similar protection to nationals of</li> </ol>				
<ol><li>If the rights to the variety are owned by the company which employ nationals of a UPOV member country, or owned by nationals of a c genus and species.</li></ol>				
3. If the applicant is an owner who is not the original owner, both the	original owner and the applicant must m	neet one of the above criteria.		
The original breeder/owner may be the individual or company who dinact for definitions.	rected the final breeding. See Section 4	41(a)(2) of the Plant Variety Protection		
According to the Papervork Reduction Act of 1995, an agency may not conduct or sponsor, control number. The valid OMB control number for this information collection is 0581-0055. noluding the time for reviewing the instructions, searching existing data sources, gathering a	The time required to complete this information collec-	ction is estimated to average 0.1 hour per response,		

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